

REFUGIO INCIDENT RESPONSE

Phase III: Guidelines for Maintenance and Monitoring

July 17, 2015

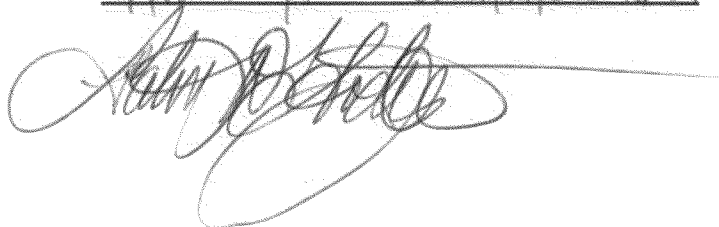
e-mail attached Capt Williams
USCG (FOSC): approved by e-mail on 7/16/2015 at 17:22 Date: 7/16/2015

e-mail attached Margaret Waldon
US EPA (FOSC): approved by email on 7/20/15 @ 1446 hrs Date: 7/20/15

e-mail attached Mark Crossland
SOSC (CA DFW): approved by e-mail on 7/17/2015 at 10:58 Date: 7/17/2015

LOSC (SB Co OEM): _____ Date: _____

e-mail attached Patrick Hodgins
RP Incident Commander: approved by e-mail on 7/17/2015 14:59 Date: 7/17/2015



Purpose:

Phase III – Maintenance and Monitoring

Phase III, post emergency response, is the maintenance and monitoring phase during which Operations cleanup crews are on standby to react and be deployed as necessary to recover Refugio Incident source oil (Line 901 oil). Phase III will focus on the areas from Arroyo Hondo to Goleta Beach (Santa Barbara Division SB-I to SB-P) which have not met Phase I or Phase II end points. Figure 1 indicates the sequence of events which will be followed to continue the maintenance and monitoring efforts through Phase III. Built into this document there are specific times and events which will allow for additional segments to be added into this process.

Phase III will focus on Shoreline Cleanup and Assessment Technique (SCAT) surveying for: 1) buried oil that has been uncovered through sand erosion; 2) natural attenuation in segments that have not met Phase II endpoints (as defined in the *Phase II: Guidelines for Terrestrial, Marine Waters and Shoreline Habitat Cleanup Endpoints, June 3, 2015* document), due to constraints (see definitions for constraints). Phase III will also consist of periodic oil sampling for fingerprint analysis in SB Divisions (I-P) that have been signed off as meeting Phase II end points (see Figure 1).

Phase III Guidelines for Maintenance and Monitoring does not include Section 5 Cliff Area. This area will have its own monitoring plan which is being developed at this time.

Definitions:

Constraints – safety, environmental, cultural/archaeological limitations as defined in *Constraints Assessment Team Activities Related to Cleaning of Cliff Faces and Contiguous Rocky Prominences June 6, 2015* report

Overview Oil Sampling Assessment (OOSA) – Refugio Incident document, *Overview Oil Sampling Assessment, signed July 8, 2015*. Sampling event covering Gaviota, CA through Orange County. Conducted on 9-10 July 2015.

Sampling - samples of different oiling types based on visual characteristics and habitat types including bedrock, boulders and cobbles will be collected. Samples will be collected by California Dept. of Fish and Wildlife – Office of Spill Prevention and Response (CDFW-OSPR) personnel and splits will be given US Coast Guard (USCG) and Responsible Party (RP) representatives on site. Samples will be sent and analyzed for source fingerprinting at the separate CDFW-OSPR, USCG and RP labs. Results will focus on whether or not the samples match Refugio Incident source oil (Line 901 oil). Data collection, sample site determination, and field methods will be consistent with the *Overview Oil Sampling Assessment, July 8, 2015* document (OOSA).

Shoreline Cleanup and Assessment Technique (SCAT) – Teams will follow standardized SCAT procedures and protocols as described in the National Oceanographic and Atmospheric Administration (NOAA) Shoreline Countermeasures Manual (<http://response.restoration.noaa.gov/oil-and-chemical-spills/oil-spills/resources/shoreline-cleanup-and-assessment-technique-scat.html>). SCAT team members will be comprised of representatives for the Unified Command (UC). Official SCAT team members must have the authority to represent the USCG, CDFW-OSPR, SB County, and RP when making clean up recommendations and signing off segments. SCAT teams will also consult with the appropriate local stakeholders. The local CDFW-OSPR environmental scientists will lead this Phase III effort. Data will be recorded using the “Shoreline Oiling Summary” (SOS) form.

Shoreline Inspection Report (SIR) – Report used to document results and recommendations of the SCAT team survey.

http://response.restoration.noaa.gov/sites/default/files/manual_shore_assess_aug2013.pdf

Shoreline Oiling Summary (SOS) – Form used to capture oiling data from segment. The form used on this response is called Shoreline Oil Summary verses the Shoreline Oil Survey as identified on the NOAA website. However, the form and intent is the same.

http://response.restoration.noaa.gov/sites/default/files/manual_shore_assess_aug2013.pdf

Significant Storm – Conditions where wave height of 3m and period >16 seconds with wave direction from the WestSouthWest (260°-290°).

To find wave heights use the following location:

http://cdip.ucsd.edu/?nav=recent&sub=nowcast&xitem=socal_now

For wave direction and period go to this site:

http://cdip.ucsd.edu/?nav=recent&sub=nowcast&xitem=barb_hs.

For regional maps of peak period and direction nowcast and up to 90-hour forecasts go to this site:

<http://cdip.ucsd.edu/themes/cdip?pb=1&r=31&d2=p54>

Process:

As indicated in Figure 1, areas included in Phase III include Segments that SCAT determined had not met Phase II endpoints due to constraints and required monitoring of the natural attenuation process. Also included are any Divisions or Segments which analysis from the Unified Command’s July 9-10, 2015 sampling (OOSA), are found to be a match between a sample taken and the Line 901 oil from the Refugio Incident.

The SCAT team(s) will assess these locations and complete a SOS to capture data. If the SCAT team determines endpoints have not been met, the SIR will be used to

document the recommendation to continue to monitor for natural attenuation in areas which cleanup crews cannot access or remove the remaining oil due to constraints (see definition of constraints above). SCAT teams will revisit and monitor the conditions in these locations every two weeks until endpoints have been met.

If endpoints have not been met and the oil is accessible and recoverable, SCAT will complete a SIR with the recommendation to Ops to conduct cleanup. These recommendations will contain new or existing Shoreline Treatment Recommendations (STR) for the segment, along with map, photographs, and GPS coordinates. SCAT may also recommend specific sampling of the segment to assist with delineation of Line 901 oil from other oil found on the beach. If this measure is recommended it will be done concurrently with cleanup operations.

Once Ops has completed cleanup or two weeks have passed since the last SCAT survey, SCAT team will visit the segments to conduct another survey.

Once a SCAT team has visited a segment and found the site to have met Phase II endpoints, it will not be assessed unless fingerprinting (as indicated in Figure 1), results match Line 901 oil. If the SCAT team determines that Phase II endpoints have been met, a SIR will be completed with the recommended to end monitoring. SCAT will then submit a memo to the Environmental Unit Leader (EUL) and Planning Section Chief (PSC) to present to the UC for sign off from active monitoring.

Even though the segment met Phase II endpoints, additional sampling for fingerprint will be conducted in SB divisions I through P after the first significant storm event (see definitions). SCAT will survey segment(s) that match Line 901 oil to determine treatment recommendation.

Sampling will be conducted in December 2015 (try and maintain one month buffer with first significant storm). SCAT will survey segment(s) that match Line 901 oil to determine treatment recommendation.

Sampling will also be conducted in March of 2016. Again, SCAT will survey segment(s) that match Line 901 oil to determine treatment recommendation.

After the March 2016 sampling, the need to continue Phase III will be re-evaluated based on sampling results and SCAT observations. If at this time, fingerprinting results do not result in any matches to Line 901 oil and SCAT does not recommend any additional remediation or monitoring, then a Phase III final sign off memo will be presented to the UC by the EUL/PSC. If the UC determines that Phase III must continue, a new sampling and SCAT survey schedule will be generated by the Planning Section Chief and presented to the UC for approval.

Determination that cleanup endpoints have been reached does not indicate the segment is necessarily recovered or restored under the definition of the Natural Resource Damage Assessment process. Furthermore, if SCAT team members are not unanimous regarding whether or not the cleanup endpoints are met, then a sheet listing the reasons for disagreement is attached to the Phase III SIR and forwarded to the Unified Command for resolution.

Segment sign-off is based on using visual field observations by the SCAT team and/or if laboratory data is available for a segment the lab data they will also be taken into account as part of the evaluation to determine if cleanup endpoints have been met. Segment sign-off does not preclude a lead or trustee agency to require the responsible party to conduct additional clean-up and/or additional actions (e.g., long-term maintenance, monitoring, and permitting that may be necessary), pursuant to applicable laws, or in the event that additional Line 901 oil (contamination) is discovered that did not meet Phase II cleanup end points.

New reports of Oil:

New oil spill reports should be reported to the USCG National Response Center (NRC) or the California Office of Emergency Services (Cal-OES). These reports will be handled by agencies that have the regulatory responsibility to respond and investigate pollution reports (e.g., USCG & CDFW-OSPR). These agencies investigate reports by first determining if it is feasible to recover oil observed on the water or found on beaches. The purpose of this evaluation by these agencies is to consider if natural attenuation is the best course of action for the environment. There are times where recovery and cleanup efforts can cause more harm to the environment than the benefit of removing the oil.

These agencies will use available resources, knowledge of known local sources and sample results from previous sampling events to make a determination if additional sampling and analysis is necessary in an attempt to match the oil found to Line 901 oil.

If USCG and/or CDFW-OSPR determines the oil found is from Line 901 oil, the Refugio Incident SCAT teams will be called upon to make a recommendation as to the next course of actions (cleanup or monitoring). Recommendations from the SCAT team will be forwarded on to the Unified Command.

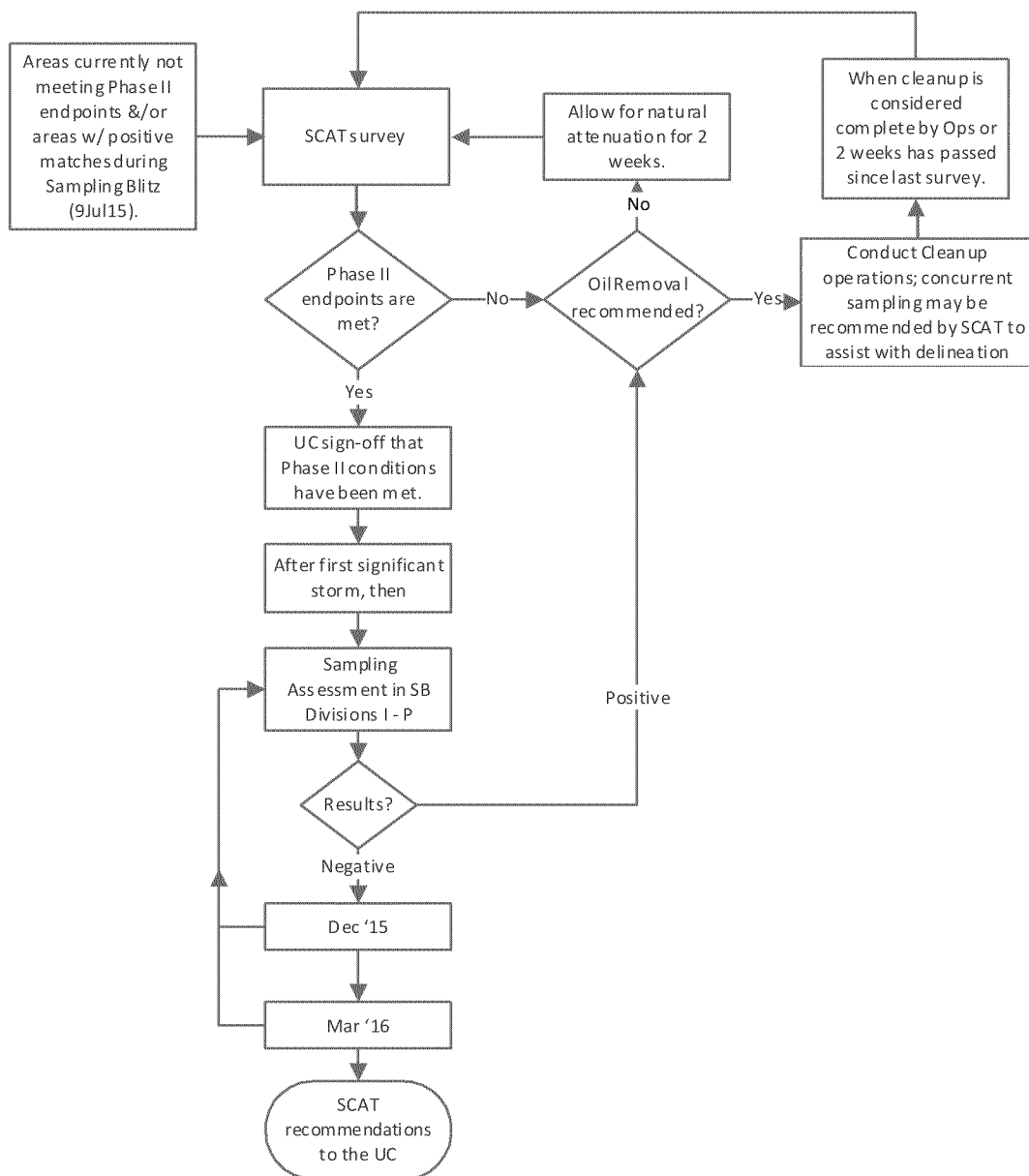


Figure 1. Phase III flowchart for Refugio Incident